

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (currently amended) Catheter in particular for endovascular applications, comprising a long and flexible, longitudinally extending, hollow, tubular body having an insertion end and a connection end intended to remain outside the body, and at the insertion end, at least two elements which are expandable/contractible by means of external operation and which are located on said tubular body at axially spaced locations along the longitudinally extending tubular body at a fixed distance from each other such as to be able to operate one upstream and the other downstream of a given section of a vessel, said expandable/contractible elements being adapted and/or being able to be adapted, with regard to their diameters in the expanded condition, to the diameters of the vessels inside which they are intended to be positioned, wherein the two elements located at the insertion end are inflatable/deflatable by means of supplying and discharge ducts which are provided inside ~~the~~ a thickness of the catheter wall, wherein the length of the section between the two inflatable/deflatable elements is generally of the order of a few centimeters to about 10 cm, substantially equivalent to the stenosis of arterial vessels or the length necessary for occluding a vascular trunk and an arterial bifurcation branch thereof, blocking the blood flow in the second branch.

Claims 2-12. (canceled)

13. (currently amended) Catheter in particular for endovascular applications, comprising a long and flexible, hollow, tubular body having an insertion end and a connection end intended to remain outside the body, and at the insertion end, at least two elements which are expandable/contractible by means of external operation and which are located on said tubular body at a fixed distance from each other such as to

be able to operate one upstream and the other downstream of a given section of a vessel, said expandable/contractible elements being adapted and/or being able to be adapted, with regard to their diameters in the expanded condition, to the diameters of the vessels inside which they are intended to be positioned, so as to block temporarily the circulation inside said vessel section, the two elements located at the insertion end being inflatable/deflatable by means of supplying and discharge ducts which are provided inside the thickness of the catheter wall, wherein said expandable/contractible elements have different diameters in the expanded condition and further comprising a central duct for conveying treatment means necessary for operating in the vessel section affected by stenosis, said central duct having an opening at the longitudinal end thereof, said opening being defined between said expandable/contractible elements.

14. (previously presented) Catheter according to claim 13, wherein the tubular body includes a main body having a first, larger diameter, provided on the outside with a first one of said elements which is inflatable/deflatable by means of one of the ducts provided in the thickness of the wall, and wherein at least one other of the ducts inside the thickness of the wall extends, after a certain length, into an extension portion of the tubular body having a second, smaller diameter and provided on the outside with a second one of said elements.

15. (previously presented) Catheter according to claim 14, wherein it comprises at least one additional duct for a guide wire in the thickness of the wall, which emerges on the end side of the most distal end of the smaller-diameter extension.

16. (currently amended) Catheter according to claim 15, wherein said duct for the guide wire extends only in the distal portion of the catheter and has a proximal end opening located between the inflatable/deflatable elements.

Claim 17. (canceled).

18. (previously presented) Catheter according to claim 13, wherein the length of the section comprised between the two inflatable/deflatable elements is generally of the order of a few centimeters to about 10 cm, substantially equivalent to the stenosis of arterial vessels or the length necessary for occluding a vascular trunk and an arterial bifurcation branch thereof, blocking the blood flow in the second branch.

19. (currently amended) Catheter according to claim 14, wherein a diameter of the larger of said expandable/contractible elements ~~the first greater external diameter is of~~ on the order of magnitude of 12-13 French (about 3.9 mm), preferably not greater than 14 French (4.2 mm) and wherein the smaller of said expandable/contractible elements has a diameter on ~~while the second smaller diameter is of~~ the order of magnitude of 5 French (about 1.5 mm).

20. (previously presented) Catheter according to claim 13, wherein the connection end has an end-piece which is intended to remain outside the patient's body, which end-piece is provided with tubular connection elements connected to the individual ducts.

21. (previously presented) Catheter according to claim 13, used to block the flow, towards the brain, of the internal carotid artery, inside which the stenosis is present.

22. (previously presented) A method of using a catheter comprising a long and flexible, hollow, tubular body having an insertion end and a connection end intended to remain outside the body, and at the insertion end, at least two elements which are expandable/contractible by means of external operation and which are located on said tubular body at a fixed distance from each other such as to be able to operate one upstream and the other downstream of a given section of a vessel, said

expandable/contractible elements being adapted and/or being able to be adapted, with regard to their diameters in the expanded condition, to the diameters of the vessels inside which they are intended to be positioned, the two elements located at the insertion end being inflatable/deflatable by means of supplying and discharge ducts which are provided inside the thickness of the catheter wall, wherein said expandable/contractible elements have different diameters in the expanded condition, further comprising a central duct for conveying treatment means necessary for operating in the vessel section affected by stenosis, the method comprising the following steps:

insertion of the catheter inside the carotid artery via the femoral artery;

positioning of the catheter so that one of said expandable/contractible elements is arranged, in the external carotid and the other one of said expandable/contractible elements is arranged inside the common carotid;

inflation of the two expandable/contractible elements via the two respective ducts provided in the thickness of the catheter wall;

operation on the stenosis of the internal carotid via insertion of the appropriate treatment instruments through the central duct;

aspiration through the central duct of possible residues deriving from catheter expansion;

deflation of the two expandable/contractible elements via the two respective ducts provided in the thickness of the catheter wall; final monitoring and extraction of the catheter and the guide wire.

23. (previously presented) Catheter according to claim 14, wherein said main body and said extension portion have a different flexibility.

24. (previously presented) Catheter according to claim 13, wherein the expandable/contractible elements, when not inflated, are contained within the profile of the tubular body onto which they are fitted.

25. (previously presented) Catheter in particular for endovascular applications, comprising a long and flexible, hollow, tubular body having an insertion end and a connection end intended to remain outside the body, and at the insertion end at least two elements which are expandable/contractible by means of external operation and which are located at a distance from each other such as to be able to operate one upstream and the other downstream of a given section of a vessel, said expandable/contractible elements being adapted and/or being able to be adapted, with regard to their diameters in the expanded condition, to the diameters of the vessels inside which they are intended to be positioned, so as to block temporarily the circulation inside said vessel section, the two elements located at the insertion end being inflatable/deflatable by means of supplying and discharge ducts which are provided inside the thickness of the catheter wall, wherein said inflatable/deflatable elements have different diameters in the expanded condition, wherein the tubular body includes a main body having a first, larger diameter, provided on the outside with a first one of said elements which is inflatable/deflatable by means of one of the ducts provided in the thickness of the wall, and an extension portion having a second, smaller diameter and provided on the outside with a second elements, and further comprising at least one additional duct for a guide wire in the thickness of the wall, which emerges on the end side of the most distal end of the smaller-diameter extension, said duct for the guide wire extends only in the distal portion of the catheter and has an opening located between the inflatable/deflatable elements.

26. (previously presented) Catheter according to claim 15, wherein said duct for the guidewire extends only in the distal portion of the catheter and has a proximal end opening located between said proximal end and said first one of said inflatable/deflatable elements.

27. (currently amended) Catheter according to claim 13, wherein said long and flexible, hollow, tubular body is made by means of extrusion and wherein said supplying and discharge ducts are integrally formed with said hollow, tubular body during said extrusion.

28. (new) A method according to claim 22, wherein said long and flexible, hollow, tubular body is made by means of extrusion.